

SURVEY METER PM1405P

CONTROL OF ALPHA AND BETA
CONTAMINATION LEVEL ON SURFACES



Purpose

Survey Meter PM1405P is designed to monitor the radiation situation, define contaminated areas, monitor surface contamination of various objects and materials, measure radiation from samples using gamma and beta channels.

Functions

- Measurement of the **ambient dose equivalent rate (ADER)** of gamma and X-ray radiation;
- Measurement of the **ambient dose equivalent (ADE)** of gamma and X-ray radiation;
- Measurement of **alfa and beta particles flux density**;
- **Search for alfa, beta, gamma and X-ray** radiation sources;
- **Visual and sound alarm** in case of thresholds exceeding.

Features

- Automatic start of the alpha, beta and gamma search mode after opening the detector filter;
- Sound signal after reaching the specified error level;
- Indication of the time of safe stay next to the detected radiation source;
- Data logging capability;
- PC communication via USB-C;
- Powered by one AA or rechargeable battery.

Application

- Customs and border services;
- Emergency and fire services;
- Civil defense units;
- Radiation, Chemical, and Biological Protection Forces;
- Scrap metal collection industry;
- Financial institutions;
- Radiological and isotope laboratories;
- Medical institutions;
- Transport organizations;
- Nuclear power plants (NPP).



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Specification

Detector	Geiger-Mueller counter
Ambient dose equivalent rate (ADER) measurement range	0.1 μ Sv/h – 300 mSv/h
Ambient dose equivalent (ADE) measurement range	0.1 μ Sv – 1.0 Sv
Energy range	50 keV – 3.0 MeV
Accuracy	ADER: ± 20 % ADE: ± 20 %
Energy response relative to 0.662 MeV (^{137}Cs) within the energy range of 0.05 – 3 MeV	± 30 %
Alpha flux density measurement range	from 2.0 to $10^5 \text{ min}^{-1} \cdot \text{cm}^{-2}$
Alpha flux density measurement accuracy (^{239}Pu)	$\pm (20 + 450/\varphi)$ %, where φ is the measured flux density
Beta flux density measurement range within the energy range of 0.15 – 3.5 MeV	from 6.0 to $10^5 \text{ min}^{-1} \cdot \text{cm}^{-2}$
Beta flux density measurement accuracy ($^{90}\text{Sr}+^{90}\text{Y}$)	$\pm (20 + 60/\varphi)$ %, where φ is the measured flux density
Alarm types	light, sound
Memory	non-volatile, up to 1000 events
PC communication	USB Type C
Power supply	one battery or accumulator type AA
Battery lifetime	up to 3 months
Operating conditions ambient air temperature relative humidity atmospheric pressure	from -20 °C to 50 °C up to 98 % at 40 °C from 84 kPa to 106.7 kPa
Ingress protection	IP65
Dimensions	136 × 69 × 38 mm
Weight	≤ 340 g

Design and specifications of the product can be changed without further notice.

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